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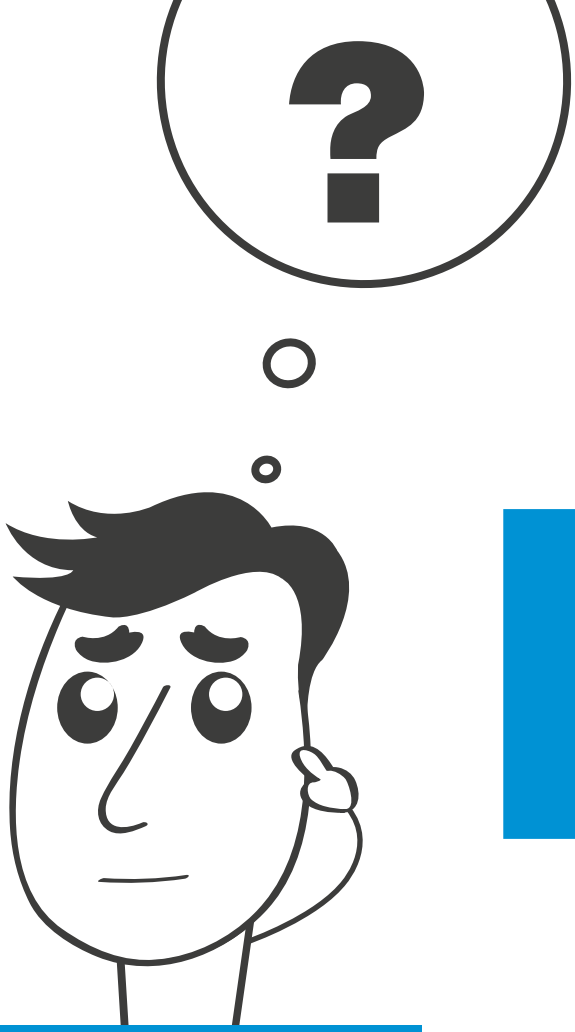
Family firm of 2014

VACUWALL®

Mobile walls

User Manual



Need advice?

Call our line

+ 420 544 22 1111

Find the manual
on the website

www.liko-s.com

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2 Materials Used

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1 Introduction

IMPORTANT INFORMATION
READ CAREFULLY
KEEP FOR FUTURE REFERENCE

Examples of VACUWALL® System Applications

Fast and inexpensive division of large office areas (such as open space) or large conference rooms into several smaller sections. This is a permanent or only a temporary solution, which also saves energy (smaller heating area in winter, smaller cooling area in summer). Adjust any space exactly to your requirements or tenant's needs, who then does not have to pay for odd metres. Easily separate the manufacturing area from the clean zone.

Benefits Offered by the VACUWALL® System

Redistribution of the inner space does not require building adaptation. Only ceiling/suspended ceiling structure needs to be checked. See page 4

It's only up to you how the inner space is divided. VACUWALL® is flexible and adapts to your current needs. Partition walls may "travel" every day.

An average skilled person can handle, install or move the mobile walls. Install the walls by yourselves according to the instructions.

No specialists are needed: just the instructions provided, two skilful people and a couple of minutes will do. The VACUWALL® system can be reused in different spaces.

A few extra VACUWALL® panels are recommended – this allows responding flexibly to new requirements for inner space layout. Select the interior variant or the warehouse variant for storing the walls.

The VACUWALL® mobile wall system protects the workplace from noise. With its design it naturally complements the looks of the interior.

Basic Technical Specifications of the VACUWALL® System

- Interior wall without visible adjustments to the ceiling and floor
- Easy to move (consists of modules)
- Excellent stability provided by interlocking modules
- No floor or ceiling anchors needed
- Simple assembly and removal of the walls
- Lightweight and stable construction
- Noise barrier (39 dB), depending on materials used
- Basic panel thickness 100 mm
- Standard module width 800 mm (adjustable if required)
- Standard module height up to 3 000 mm
- Walls can be combined with other LIKO-S wall systems, thus extending possible applications

VACUWALL® System Structure and Principle of Use

The structure consists of wood panel bordered with aluminium profiles. VACUWALL® modules are anchored in the wall using wall stops, to which other modules are connected using tongue-and-groove joints. They are sealed at the floor and ceiling by bracing pressure of the bag. The module can be rectified at the floor level to adjust to uneven floor.

The ceiling has a profile evenly distributing the

load to the suspended ceiling. The modules are handled either manually using vacuum cups, or with a manipulator. Dismantled module assemblies can be stored in the so-called parking place.

CAUTIONS

Long, reliable and trouble-free performance of VACUWALL® modules requires proper and careful handling.

When working with VACUWALL® modules, the user has to exercise utmost caution due to relatively high weight of each module. Respect health limits for manual load handling in consideration of current operator's health condition.

Using the VACUWALL® System and Ceiling / Suspended Ceiling Preparation

WARNINGS

(1) Loading capacity of the floor must always be sufficient to transfer the VACUWALL® point load. Module weights are specified in the "VACUWALL® module operator's statement" always included in the certificate of acceptance.

(2) Maximum ceiling and floor structure deflection has to be 5 mm.

(3) The ceiling structure / suspended ceiling has to meet the requirements described below. If the ceiling structure / suspended ceiling meets the following criteria, the VACUWALL® modules can be used without the ceiling profile.

These are:

- Concrete ceiling
- Ceramic ceiling bricks
- Aeroconcrete ceiling bricks
- Wooden ceiling with wooden panels (min. thickness 15 mm on beams with max. pitch 600 mm)
- Plasterboard ceiling

a) Knauf D112 nonius hanger
b) Rigips PK22 nonius hanger

Ceiling profile has to be used in all other ceiling structures/suspended ceilings.

(4) Do not hang any items such as cabinets, shelves or pictures on the VACUWALL® modules.

Safe Workplace

WARNINGS

(1) Use protective equipment – working clothes, safety gloves and working shoes – when working with VACUWALL® modules. Risk of injury – abrasions, stabs, compressions.

(2) VACUWALL® module operators have to be demonstrably familiar with these instructions for use. They have to comply with safety and health regulations. The team must have at least two operators.

(3) Use only approved manipulators supplied by the manufacturer to handle the VACUWALL® modules.

(4) Before handling the VACUWALL® modules the operator must make sure the operating area is safe and an escape path from the area exists in case of jeopardy.

(5) The floor for moving the manipulator for handling the VACUWALL® modules must always be flat, with sufficient loading capacity, and free of any obstacles. Risk of falling, slipping or compression.

(6) Keep all persons except for operators away from the area where the VACUWALL® modules are handled.

Safety principles

WARNINGS

(1) Do not use other methods than as specified by the manufacturer to carry out repairs or maintenance. In particular this applies to not handling the bags and the pneumatic system of the VACUWALL® modules.

(2) When assembling the VACUWALL® modules take special care to avoid injury by modules to be connected to each other, especially on vertical edges with the tongue-and-groove joint.

(3) When dismantling the VACUWALL® modules the wall profiles (stops) should be covered, preventing injury by the wall profiles.

(4) Dismantled and packed VACUWALL® modules have to be stored in a suitable place preventing interference with the operations in the building and/or injury to nearby people.

(5) Minimum distance of stored VACUWALL® module foot from the vertical wall is 350 mm, and maximum distance is 550 mm – see the storage sketch.

(6) Stored VACUWALL® modules in the storage position have to be secured against tilting with straps.

(7) Other than specified uses or methods for VACUWALL® module storing are at user's own risk and responsibility.

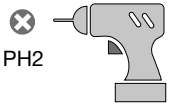
2 Materials Used

Tools

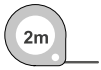
Water-level 1.5 m

Impact drill

⌀ 6 mm



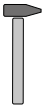
Cordless screw-driver



Tape measure

Marking string

Vacuum rubber disks - bearing capacity min. 60 kg



Hammer

Wrench No. 13

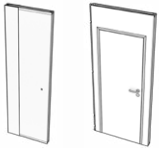
Pencil

Standard Materials

Wall stop – profile

Ceiling profile + direct connections + covers

Standard module



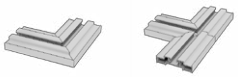
Telescopic module / door module

Accessories

Optional Accessories

Trolley

Wall stop cover



L and T ceiling profile connection

Right/left L-profile
Right/left T-profile

Parking place type 1 (between floor and ceiling)

Parking place type 2 (leaned against the wall)

Vacuum rubber disks - bearing capacity min. 60 kg

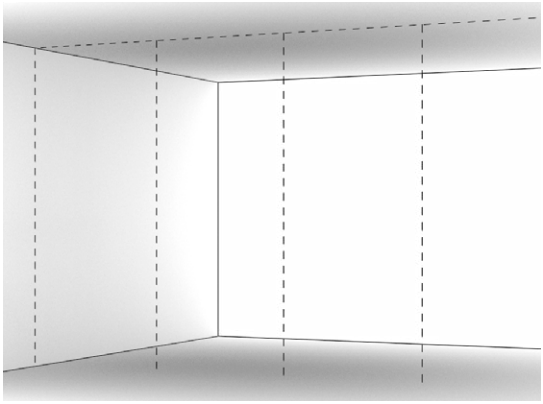
3 Installation

1. Measurement and Tolerances

• Horizontal tolerances
VACUWALL® modules allow for floor and ceiling flatness tolerance. This tolerance is +/-5 mm from the ideal plane for the floor as well as the ceiling.

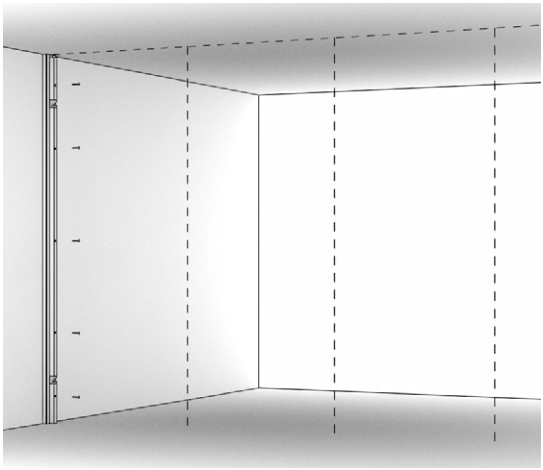
• Vertical tolerances
Wall stops have to be anchored to be vertical. Any unevenness should be adjusted to the ideal position by padding, for example. Maximum allowable deviation for the stop is +/-1 mm.

• Mark off the position of VACUWALL® modules
with a pencil (or marking string) to the wall and ceiling structure.

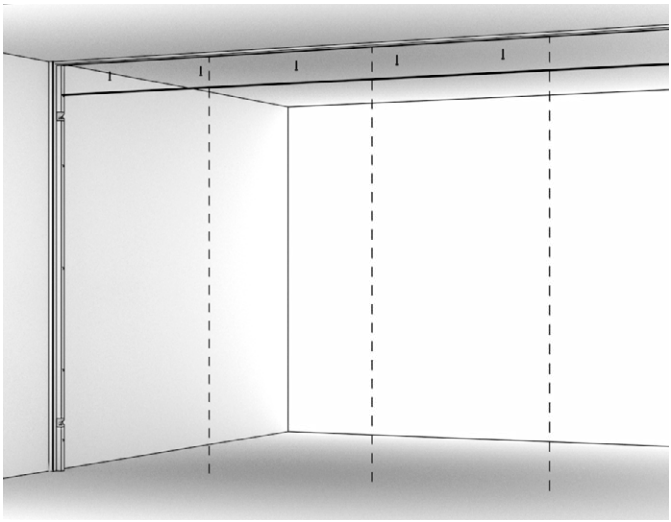


2. Wall Profile (Stop) Installation

The wall profile is installed with standard anchor elements into pre-prepared holes. Suitable anchor material depends on the type of structure where the anchor is to be placed. The holes in the profile should be covered with provided plugs after the installation.

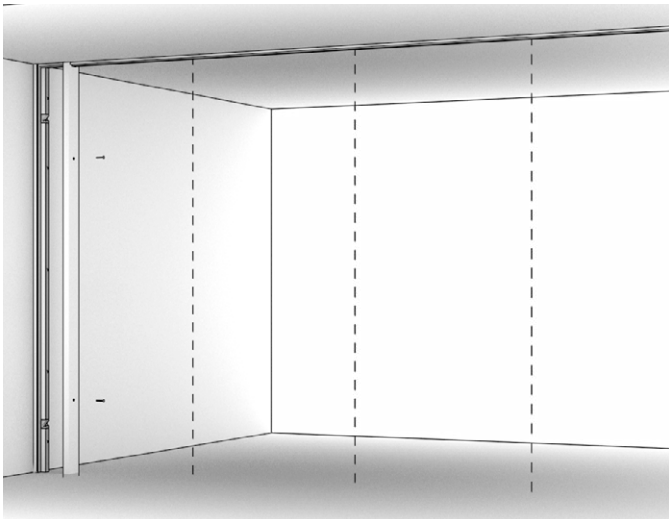


3. Ceiling Profile Installation



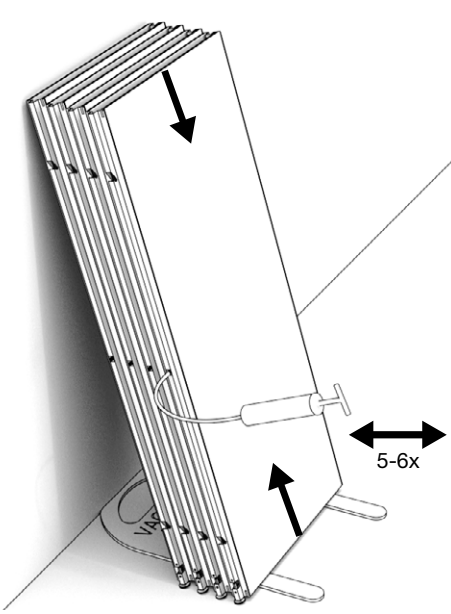
The ceiling profile is installed with standard anchor elements. Suitable anchor material depends on the type of structure where the profile is to be anchored. The profile groove should be covered with the U-shaped PVC sealing after the installation. In some cases (grid ceiling panels) the ceiling/suspended ceiling should be braced to avoid lifting. Options for plasterboard suspended ceilings and other than heavy ceilings should be consulted with the supplier of the system.

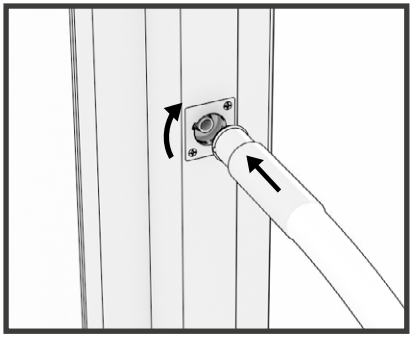
4. Wall Profile Cover



If the modules are parked, covers can be mounted on the wall profile. The cover is equipped with provided pins that are inserted in the prepared holes.

5. Module Preparation for Building in



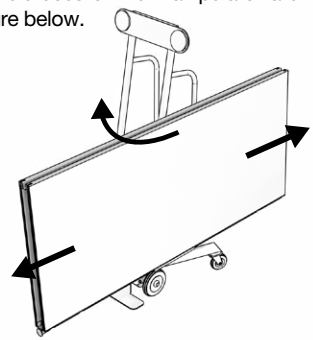


Before handling the VACUWALL® module, deactivate the module using the pump supplied. Insert the end-piece in the valve and lock by turning it clockwise. Deactivate the panel with five to six pump moves to create vacuum in the sealing profile.

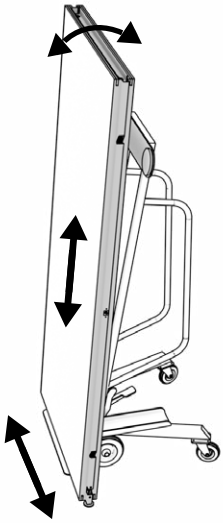
6. Handling the Modules

Use the manipulating trolley (manipulator) or manual vacuum disks with bearing capacity at least 60 kg to handle the modules. Always use two vacuum disks for handling. Decide based on operator's skills and capacities. The advantage of the manipulator consists in the possibility of transporting the module horizontally.

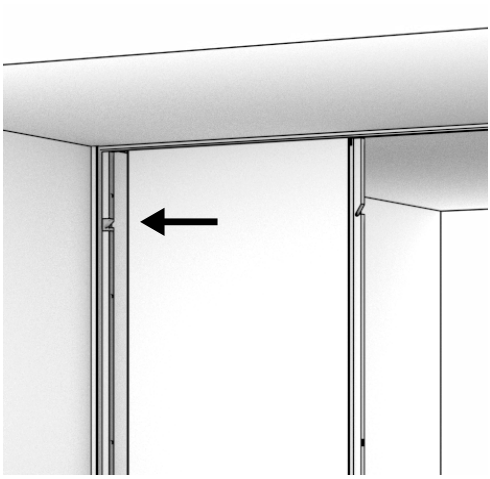
Another advantage of the manipulator is easier installation. Possible uses of the manipulator are shown in the figure below.



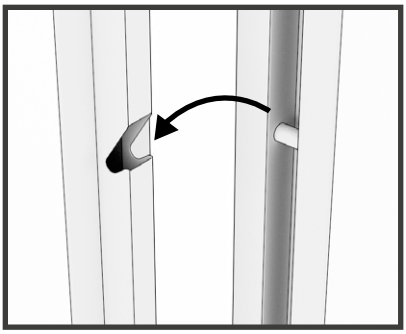
CAUTION!
Follow the safety rules described on page 4 when handling the modules.



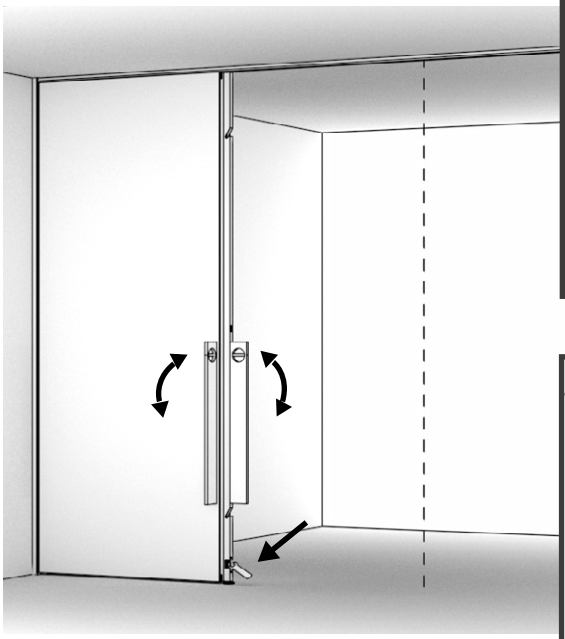
7. Installation of First Module

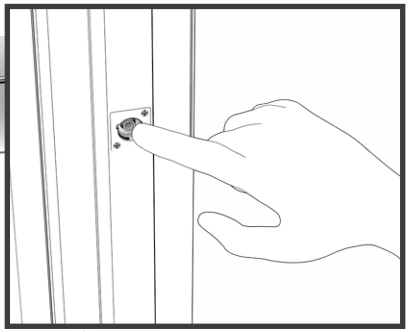


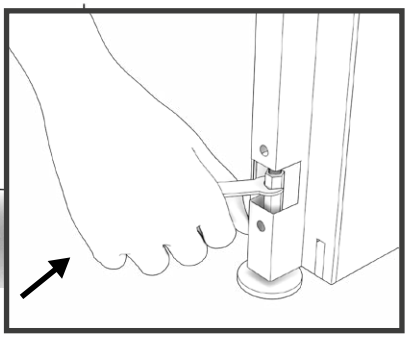
The installation of Vacuwall® modules is simple; the first panel is hung in the wall stop using the special lock.



Then the module is aligned with the water-level. The adjustable foot is used for aligning the module in the wall axis by turning the wrench supplied. Following alignment, activate the module by pressing the valve. Activation means drawing the air into the sealing profile and stabilizing the module.

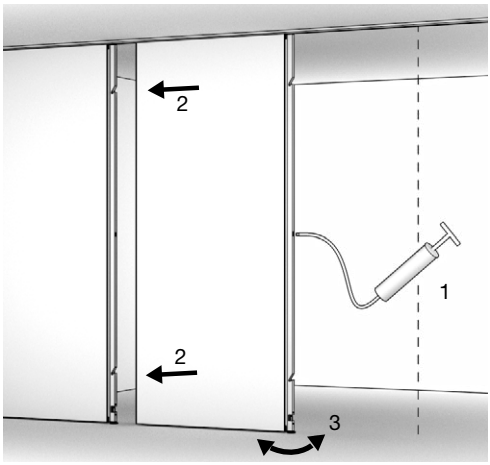




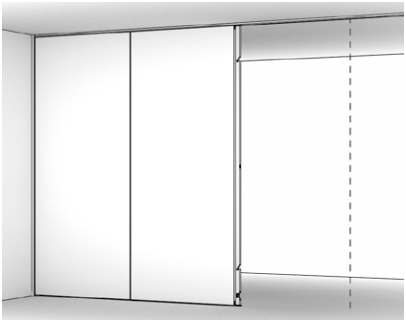


Take care to avoid hand injury when jointing the panels.

8. Installation of Standard Modules

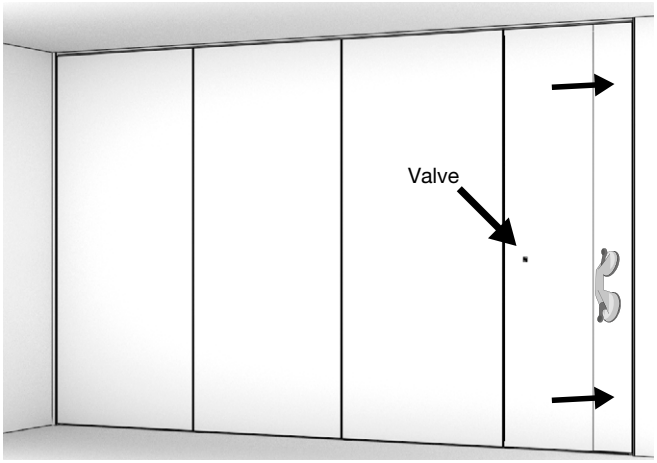


It is similar to that of the first module except that each of the following modules is hung into the lock of the previous module. All other actions – module balancing and activation – are identical.



If columns are used, 90° corners and perpendicular connections can be made. Install them by hanging like the standard module. Then tighten the adjustable foot to brace it against the floor. The columns do not have valves.

9. Installation of Telescopic Module

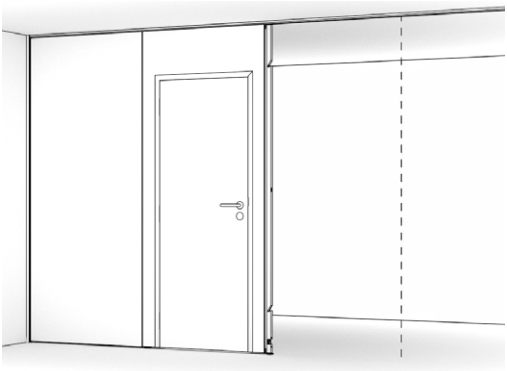


Also install by hanging on the last but one module of the assembly. The difference against the standard module is in the valve location in the module face.

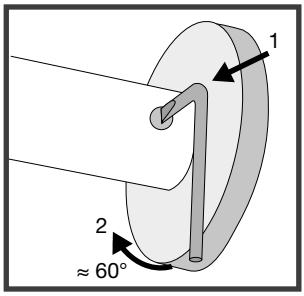
After hanging the module, close the remaining space towards the wall stop (about 50 mm) by extending the module in the direction of arrows manually using the vacuum disk.

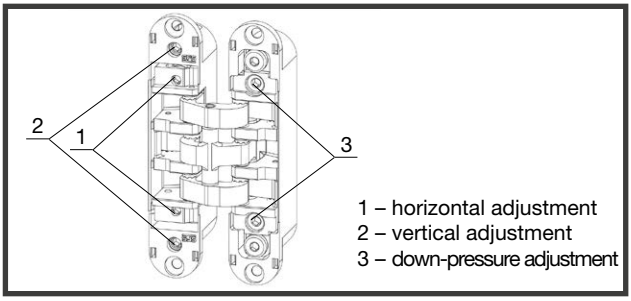
10. Installation of Door Module

It is similar to that used for the standard module. Unlike the standard module, it does not have the adjustable foot. When handling the door module, remove the door handles and lock with the key. The door has adjustable hidden hinges and handles with the QUICK FIT system for fast fitting/dismantling without using any tools. The handle removal and hinge adjustment procedure is shown in the figure.



CAUTION: Do not transport the door module on the manipulating trolley by the lower threshold strip – risk of damaging the strip. Handle the door manually only!



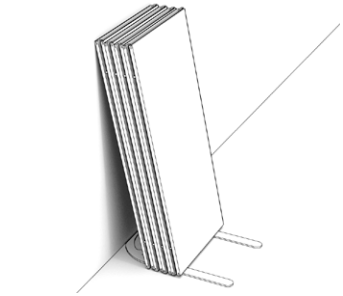


11. Storing Vacuwall® Modules

Three basic storage methods are used:

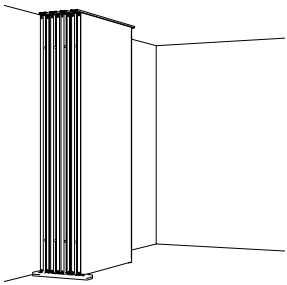
(1) Leaning against the wall using the support provided.

CAUTION: Make sure that the adjustable foot of the module is out of the support when leaning the modules.



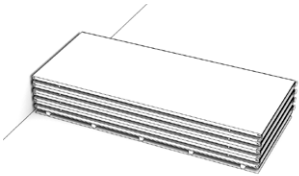
CAUTION: In all cases the weight of stored modules must not exceed the loading capacity of the floor.

2) Bracing between the floor and ceiling using the ceiling and floor stand provided.



3) Horizontally on a pallet.

CAUTION: Do not stack more than 8 panels.



4 Cautions

Warranty

The warranty does not apply to damages caused by failure to follow or ignorance of the user manual.
The warranty does not apply to defects caused by mechanical damage to the modules. Neither does the warranty cover any subsequent damages caused as a result of handling a non-functional module.

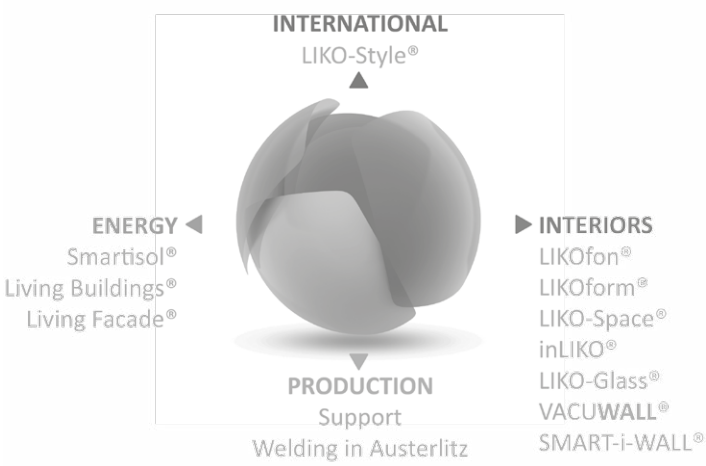
The warranty period and warranty conditions are described in the contract for work.

Statement of the VACUWALL® Customer and User/Operator

The customer (user) of VACUWALL® modules has to be demonstrably made familiar with this user manual, which is an integral part of the certificate of acceptance.

Notes

Company Structure



ENERGY

The Energy Division specialises in energy saving. We build new buildings and insulate existing buildings. Energy employs the experience gained as part of the Živé stavby® (Living Buildings) and Chytrá izolace® (Clever Insulation) programs.

PRODUCTION

The Production Division manufactures production lines and their parts from carbon and stainless steel and aluminium. The Production Division employs 70 people. All of us are united by the effort to produce the best possible performance. Every day we follow our proven mottoes: Quality is the Key, Clean and Precise Craft, We Believe in the Importance of the Detail.

INTERIORS

The Interiors Division manufactures interior arrangement systems for production halls, industrial buildings and administrative and public buildings. These are adjustable and sliding partitions, built-in hall structures and acoustic suspended ceilings.

Contact details

LIKO-S, a.s.,
U Splavu 1419,
CZ-684 01 Slavkov u Brna

Tel.: +420,544,221,111
E-mail: info@liko-s.cz
www.zivestavby.cz

www.liko-s.cz